

though *T. persa* eggs are typically more spherical (36×33) (data from Mackworth-Praed & Grant 1952, 1970) and very close in shape to that of *T. fischeri*.

We are grateful to John Shaw and James Kalume for their invaluable assistance in finding this nest.

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Address: Box 90163, Mombasa, Kenya.

New subspecies of *Schizoeaca fuliginosa* and *Uromyias agraphia* from Peru

by John P. O'Neill & Theodore A. Parker, III

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The Cordillera Carpish is a high mountain massif located ($9^{\circ} 40' S$, $76^{\circ} 4' W$) between the towns of Huánuco and Tingo María in the Departamento de Huánuco of Peru. Its western slopes are under the influence of a rain shadow and are quite arid, but the eastern slopes above c 2060 m are covered with luxuriant cloud forest (for details see Tallman 1974). From the vicinity of the Carpish Tunnel, where the Carretera Central crosses the range at c 2740 m, one gets no idea that the highest peaks both northwest and southeast of there rise above timberline and provide habitat for many species of birds that would not otherwise be found in the region; such birds as *Ampelion* [*Doliornis*] *sclateri*, *Hemispingus rufosuperciliaris*, *Notiochelidon flavipes*, *Nephelornis oneilli*, *Iridosornis jelskii*, *Uromyias agraphia*, and *Schizoeaca fuliginosa* were found to be not uncommon.

In 1973, during studies in these areas by a field party from the Louisiana State University Museum of Zoology, we obtained a series of the White-chinned Thistletail *Schizoeaca fuliginosa*.

The Carpish population of *S. fuliginosa* proved to be a well-marked race that we propose to call

Schizoeaca fuliginosa plengei subsp. nov.

Type: Adult male, collected on 23 June 1973 by Erika J. Tallman at Bosque Taprag above (NE) Acomayo, Departamento de Huánuco, Peru, elevation c 3350 m. No. 74008, Louisiana State University Museum of Zoology. (Dan A. Tallman original number 1328.)

Description: Differs from all known forms of *Schizoeaca fuliginosa* by possessing a white superciliary stripe and by having the feathers of the throat, malar region, breast, and belly marked with moderate to strong white shaft streaks.

Measurements of type (mm): Wing (chord) 58.2, tail 105.7, tarsus 25.4, culmen from base 16.4.

Range: So far as known, north and west of the Huallaga River in the Carpish massif of the eastern Andes of Peru in the Departamento de Huánuco; recorded from suitable habitats both northwest and southeast of Carpish Tunnel.

Specimens examined: *Schizoeaca f. fuliginosa* (6). Venezuela: Páramo de Tamá, 1♂, 1♀ (AMNH 811984-985). Ecuador: Cerro Huamani, 1♀ 1♂, (AMNH 176074 and 180296); Oyacachi, 1♂ (AMNH 180295); Sumaco, 1♂ (AMNH 186385).

S. f. peruviana (11). Peru: Atuén, 2♂♂, 4♀♀ (ANSP 115322, 115324-328); Llui, 1♀, 1 sex ? (ANSP 117508-509); Bagazán, 1♀ (ANSP 117510); km 404 on Balsas-Leymebamba rd., 1♂ (LSUMZ 80507); 25 km W Leymebamba, 1♂ (MVZ 156484).

S. f. plengei (14). Peru: Bosque Cutirragra, 1♂ (LSUMZ 74007); Bosque Taprag, 1♂ (LSUMZ 74008, type); Bosque Magrapampa, 1♀, 1♂ (LSUMZ 74009-010); Huaylaspampa, 1♂ (LSUMZ 74011); Bosque Zapatagocha, 1 sex ?, 1♀ (LSUMZ 75209-210); Bosque Quiullacocha, 1 sex ? (LSUMZ 79684); Unchog, 5♂♂, 1♀ (LSUMZ 80501-506).

S. f. griseomurina (1). Peru: Huancabamba, road to San Ignacio, 1♂ (FMNH 222320).

Remarks: Not uncommon in the *pajonal* just above timberline. As used in Peru, the term *pajonal* refers to a wet, sometimes boggy area above timberline that contains a mixture of grasses, scattered bushes, tree ferns, and, in some areas such as in the Carpish mountains, clumps of terrestrial bromeliads.

We take great pleasure in naming this new form for Manuel A. Plenge, both in recognition of his contributions to Peruvian ornithology and in appreciation of the friendship and courtesies he has extended to ornithologists from all over the world who have come to his home in search of information concerning Peru's avifauna.

The populations of *Schizoeaca fuliginosa* are divisible into two main groups, a rufous- or buff-chinned one and a white-chinned one. The new form is white-chinned. As stated by Vaurie *et al.* (1972) populations of *S. fuliginosa* do not vary greatly in size, and we found this true of all four of the white-chinned forms. We were fortunate in having recently-collected specimens of all forms of *S. fuliginosa* except *S. f. vilcabambae* available to us for making colour comparisons. Material collected 40 to 50 years ago cannot safely be used in making colour determinations, though basic differences in patterns are still clearly evident. Thus the subterminal dusky markings on the belly feathers and the pale shaft streaks on the throat feathers of *S. f. peruviana*,

characters not mentioned by Cory (1916) when he described that race, nor by Carriker (1933) when he gave reasons for rejecting it, are discernible in all specimens examined regardless of their museum age. The ventral markings are least pronounced in *S. f. fuliginosa* and *S. f. griseomurina*, both of which are essentially grey below. *S. f. plengei*, the southernmost of the white-chinned races, has underparts that appear lightly streaked due to the presence of white shaft markings, and *S. f. peruviana*, to which the new race is most closely related, has mottled underparts. *S. f. palpebralis*, the northernmost of the rufous-chinned races, and the one that is found just south of *S. f. plengei*, is plain grey below. *S. f. palpebralis* and *S. f. griseomurina* further differ from all the other races by possessing large, striking white eye-rings and by the near

TABLE 1
Comparisons of colours of recently collected specimens of the four
white-chinned races of *Schizoeaca fuliginosa*

	<i>S. f. fuliginosa</i>	<i>S. f. peruviana</i>	<i>S. f. plengei</i>	<i>S. f. griseomurina</i>
Dorsal colour	burnt umber	burnt umber	burnt umber	mouse-brown
Superciliary colour	olive-grey	olive-grey	white, some olive-grey speckling	mouse-brown, obscure
Chin colour	white	white	white	white
Throat colour	grey, obscure white shaft streaks	grey, strong white shaft streaks	whitish, narrow grey edging	grey, unmarked
Breast colour	grey	grey	grey	grey
Belly colour	greyish-white unmarked	grey, feathers with subterminal darker spot and tipped greyish white	grey, feathers with white shaft streak and white tip	grey, slightly paler than breast
Flank colour	olive-grey	olive-grey	rufescent-olive	olive-brown
Rufous on primary 2, 3	little, not reaching shaft	strong, reaching shaft	strong, reaching shaft	lacking, mouse-brown instead

absence of a superciliary line. *S. f. griseomurina* stands alone among the white-chinned forms in its plainness. The presence of a form in both the white-chinned and the rufous-chinned groups that is essentially unmarked below and which possesses a striking white eye-ring is a matter of considerable interest, but we have no explanation to account for the significance of this variation.

Schizoeaca is not recorded between the Huánuco localities north and west of the Huallaga River south to Hda. Maraynioc in central Junín, where the rufous-chinned, eye-ringed, form *S. f. palpebralis* occurs. The canyon of the Huallaga cuts a major swath through the mountains of central Huánuco, and the canyon of this river may form the boundary between the northern white-chinned group and the southern, rufous- or buff-chinned complex. Mountain areas to the west that attain elevations suitable for *Schizoeaca* are too dry for them; to the east the Carpish massif drops off into lowlands

that are also unsuitable for *Schizoeaca*. In Peru thistletails seem to be found only over 3050 m in the wet *pajonales* of the eastern Andes, and are inhabitants of thick, often mossy or grass-choked vegetation, where they creep about in search of food. They rarely fly and may not be capable of long distance flights, and thus show mountain "island" distributional and evolutionary patterns. Because of the paucity of *Schizoeaca* habitat in the vicinity of the "Northern Peruvian low" (see Vuilleumier 1968) we are sure that neither of the two forms found north of the "low", *S. f. fuliginosa* and *S. f. griseomurina*, make contact with *S. f. peruviana*, the form found south of this unsuitable area. The two northern forms may make contact with each other, but there is presently no indication that they do so; there is no information about the degree of continuity of suitable habitat in the vast area intervening

TABLE 2
Selected measurements in millimeters of the four white-chinned
races of *Schizoeaca fuliginosa*

WING		TARSUS		CULMEN FROM BASE	
males	females	males	females	males	females
<i>S. f. fuliginosa</i>					
n=4 60.5-66.0 (60.9)	n=2 57.7-59.9 (58.8)	n=4 24.1-25.2 (24.8)	n=2 22.8-23.0 (22.9)	n=3 15.6-16.5 (16.1)	n=2 16.1-17.0 (16.6)
<i>S. f. peruviana</i>					
n=5 59.1-64.2 (61.4)	n=6 55.6-58.6 (57.6)	n=5 25.1-25.7 (25.4)	n=6 22.1-24.8 (23.8)	n=5 16.2-18.0 (16.8)	n=6 15.3-17.2 (16.3)
<i>S. f. plengei</i>					
n=9 54.5-58.2 (56.9)	n=3 54.2-55.0 (54.6)	n=9 24.0-26.2 (24.9)	n=3 23.3-25.0 (24.1)	n=9 16.2-17.2 (16.6)	n=3 16.9-17.0 (16.9)
<i>S. f. griseomurina</i>					
n=1 62.9	n=1* 58.0	n=1 25.9	n=1* 25.5	n=1 16.5	n=1* 15.0

* measurement supplied by E. R. Blake, *in litt.*

between the known ranges of *S. f. plengei* and *S. f. peruviana* to indicate whether they are sympatric or separate.

E. R. Blake of the Field Museum, Chicago, has called to our attention (pers. comm.) two Peruvian specimens of *S. f. griseomurina* in that collection. This subspecies is known from southern Ecuador, but has not previously been reported from Peru (Meyer de Schauensee 1970, treated therein as a full species). They were taken by Celestino Kalinowski "on the road to San Ignacio, Km 30, 3000 m [above] Huancabamba, Department of Piura". The two specimens are a male, taken on 22 May 1954 (FMNH 222320), and a female, taken on 20 May 1954 (FMNH 222319). We examined only the male.

Vaurie's (1971) decision to place all forms of the genus (*sensu stricto*) into a single polytypic species may later prove to be incorrect. Most of the forms will probably prove to be allopatric and for this reason few opportunities will be provided for testing whether they are capable of interbreeding, but the possibility should be kept in mind by field workers.

In the Carpish area of Huánuco and in the Ollantaitambo-Quillabamba area in the Cordillera Vilcanota, Departamento de Cuzco, we also obtained five specimens of the poorly-known Unstreaked Tit-Tyrant *Uromyias agraphia*. The three specimens from the Carpish massif not only extend the range of the species c 550 km to the north-northwest, but they are recognizably distinct from those of the southern population. We propose to call them

Uromyias agraphia squamigera subsp. nov.

Type: Adult male, collected on 21 July 1973 by Erika J. Tallman at Bosque Cutirragra, south of Huaylaspampa, Departamento de Huánuco, Peru, elevation c 2775 m. No. 74301, Louisiana State University Museum of Zoology. (Dan A. Tallman original number 1552.)

Description: Differs from *U. a. agraphia* by having the feathers of the breast both edged and prominently tipped with white, instead of only edged with white, to form scalelike markings.

Measurements of type (mm): Wing (chord) 57.9, tail 68.5, tarsus 19.3, culmen from base 13.7.

Range: Known from timberline forest and elfin-woods of the Cordillera Carpish, Departamento de Huánuco, Peru.

Specimens examined: *Uromyias agilis* (3). Colombia: La Victoria, 1♀ (FMNH 292223); Florente, 2♂♂ (FMNH 292222 and 292226).

U. agraphia agraphia (2). Peru: 24 km NE Abra Málaga, 1♂ juv. (LSUMZ 78796); San Luís, 1♂ (LSUMZ 78797).

U. a. squamigera (3). Peru: Bosque Cutirragra, 1♂ (LSUMZ 74301); Punta de Esperanza, 1♂ (LSUMZ 79704); Carpish [=Carpish Tunnel], 1♂ (MVZ 160746).

Remarks: The name *squamigera* is used in reference to the scaly effect created by the white tips on the breast feathers. Although *Uromyias agraphia* has only been reported from three areas, we suspect that it will eventually be found to inhabit suitable areas between Huánuco and Cuzco and that it may range south to central Bolivia.

It forages in groups of two or three up to a half dozen individuals, unusual for tyrannids. That there is no literature about the Unstreaked Tit-Tyrant except a description of the type specimen is amazing as the species is common both in the Cordillera Carpish and on the northeast side of the pass between Ollantaitambo and Quillabamba in the Cordillera Vilcanota. We never saw them hang upside down, but they forage restlessly and nervously, preferring open or semi-open areas, especially where tangles and thickets with *Chusquea* bamboo occur. Most food seems to be obtained by picking and gleaning. Flycatching, in the strict sense, is uncommon. *Uromyias agraphia* is mainly a bird of timberline vegetation, but we have seen it at the edge of cloud forest clearings as low as 2740 m.

Birds from the Carpish region are nearly identical in size to those from the Departamento de Cuzco. Two of the three *U. a. squamigera* are much paler yellow, and the third slightly paler yellow below than are the two *U. a. agraphia* in the LSUMZ collection. Examination (J.P.O'N) of the type of the species, collected at Idma near Santa Ana (Hda. Santa Ana=present-day town of Quillabamba) by Edmund Heller and described by Chapman (1919) showed it to be essentially identical to the LSUMZ specimens taken in the same range c 120 km to the south-southeast.

When we first initiated this study we were of the opinion that *U. agraphia* might be nothing more than the southern representative of *U. agilis*, but Melvin A. Traylor of the Field Museum of Natural History in Chicago, has informed us (*in litt.*) of why he believes that the two are not conspecific. Some of the differences are a matter of degree, such as the heavier ventral streaking and brighter yellow breast of *agilis*, but other characters are quite distinct: *agilis* has the back streaked, *agrapphia* does not; *agilis* has a pale base to the mandible, *agrapphia* does not; *agilis* has black lores and a white superciliary stripe that goes from the region of the nares to the distal tip of the black crest, but in *agrapphia* the superciliary stripe and the lores are mottled grey and white and the stripe terminates just posterior to the eye; *agilis* has the tertials and inner primaries broadly edged with buffy white, but in *agrapphia* the edging is olive and not obvious. One of the most striking differences is that the juvenal plumage of *agilis* exhibits two distinct buffy wing bars, while the juvenal plumage of *agrapphia* (LSUMZ 78796 with skull 20% ossified) lacks any trace of wing bars. A further hint is that the population of *agrapphia* geographically nearest to *agilis*, namely the Carpathian population with their scalloped breasts, is the most distinct phenetically. We thus agree with Traylor that the two are best treated as separate species until proven otherwise.

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Address: Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana 70893, USA.